



Elements of a transformed Free State economy:
Manufacturing sector with special focus on metal and
metal fabrication

Quarter: 2 Report



destea

department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

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Compiled by:

Mr S.T Belot

ASD: Economic Research Management

Date: 28 / 09/ 2021

Checked by:

Ms B.M Kruger

DD: Economic Research Management

Date: 28 / 09/ 2021

Approved by/ not approved:

Adv. J Mosia

Dir: Economic Research

Date: 30 / 09/ 2021

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SECTION A: BACKGROUND OF STUDY

1. Introduction

Metals and minerals play an essential role to almost all aspects of life. They enable a number of industries such as farming, healthcare, communications, water and energy supply, transport, space technology, and the construction of cities.¹ Metals fabrication in South Africa is the most advanced and diverse metal fabrication sector in Africa. The industry spill over into top steel consuming industries, such as mining, construction, automotive, cables and structural steel have contributed about 15% to the South Africa's economy. Basic iron and steel, non-ferrous and ferrous metal products and machinery accounted for a fifth of South Africa's manufacturing output in 2018.²

The Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEa) promotes economic development in the Free State and create a conducive environment for job creation. DESTEa developed the Free State Economic Development Strategy that identifies manufacturing, mining, agriculture, transport and tourism as the key drivers for economic development and sustainable job creation. DESTEa has decided to develop long-term programmes that would focus on investment in petro-chemical industry, key-manufacturing subsectors and ensure an enabling environment for manufacturing.³ In efforts to realize the objectives of those long-term programmes, this research will focus on manufacturing with special reference to metal and metal fabrication as the subsector. Section A provides a literature review, problem statement, research objectives and methodology. Section B of this report provides the reader with an economic and sectorial overview. Section C provides the research findings, recommendations, and conclusion. The reference list is included to acknowledge all sources used to avoid

¹ International Council of Mining and Metals: the value of Minerals and Metals. https://metals.miningwithprinciples.com/?gclid=CjwKCAjwT8uGBhBAEiwAayu_9fGYrJwO8OdW8-2LCz4R-GJrn-Kbr5mGz_fsw_PoRDLc6VQYMtoTRoCI-MQAvD_BwE

² Department Trade and Industry: Investing in South Africa's Metal fabrication sector. Factsheet 2020.

³ DESTEa. (2016). Free State Provincial Economic Development Strategy Framework. Free State: Bloemfontein.

plagiarism. Attached to this report is an annexure that provide a comprehensive database of manufacturing companies in the Free State.

2. Literature review

The manufacturing industry plays a significant role in the South African economy; manufacturing is the country's fourth largest industry, contributing 14% to the gross domestic product (GDP). The food and beverages division is the most important player in the industry, contributing 25% to total manufacturing activity, with petroleum and chemical products contributing 24% and basic iron and steel contributing 19% in 2019. Manufactures contribution towards the gross domestic product (GDP) has declined over the years. In 1981, the manufacturing industry contributed a record high of 25%, which significantly decreased over the years to 14% towards the GDP by 2019. The performance of South Africa's manufacturing sector is poorer compared to the international community. Manufacturing production decreased by 4, 1% in July 2021 compared with July 2020. The ratios is lower in South Africa compared to ratios achieved by developing economies in East Asia and Pacific region.⁴ In terms of export, approximately 26% of South Africa's total exports was valued at R311.4 billion in 2017 and was sold to the African markets. The African market enjoyed the lion's share of South Africa's manufactured goods, which included non-electrical machinery, processed food, chemical products and motor vehicles (parts and accessories). According to Industrial Policy Action Plan (IPAP) 2018/19-2020/21, South Africa's merchandise exports to the European Union (EU) was approximately R262 billion in 2017, while China absorbed 19.7% of South African mining exports. A mere 3.9% of South Africa's manufacture exports was traded to China during that same period, which consisted of base metals, paper and paper products and processed food. Concerning the United States, their export goods from South Africa was largely PGM (which accounted 23%), and motor vehicles, parts and accessories accounted for 21.2%.⁵ The export data indicates that the major exporting countries derive from

⁴ The dti. (2018). Industrial Policy Action Plan: Economic sectors, employment and infrastructure development cluster 2018/19 to 2020/21. Accessed from: (<http://www.thedtic.gov.za/wp-content/uploads/IPAP.pdf>).

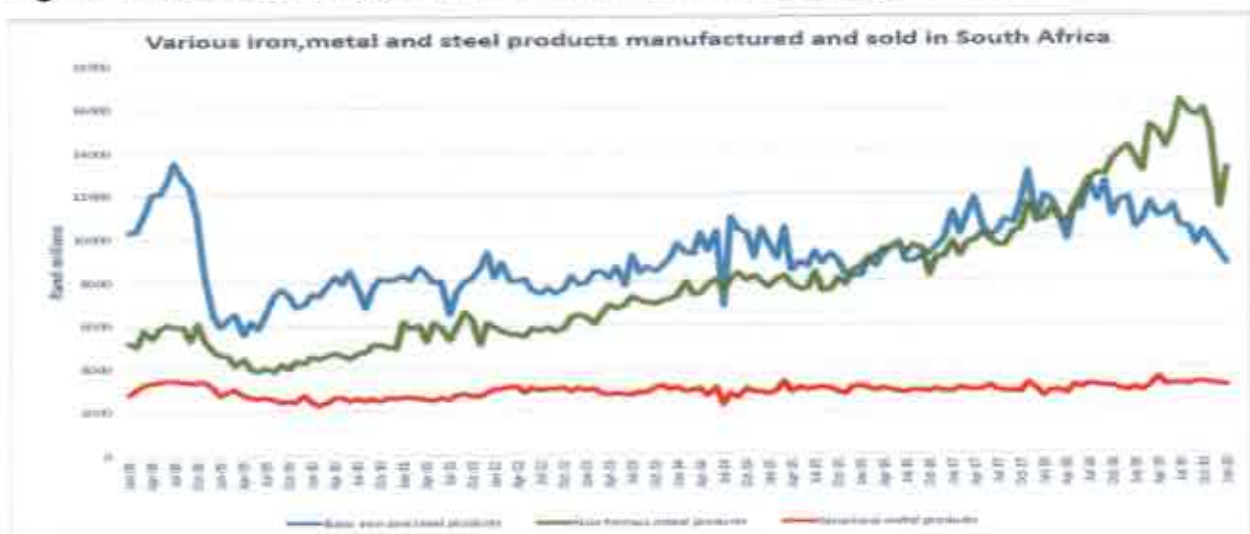
⁵ The dti. (2018). Industrial Policy Action Plan: Economic sectors, employment and infrastructure development cluster 2018/19 to 2020/21. Accessed from: (<http://www.thedtic.gov.za/wp-content/uploads/IPAP.pdf>).

Africa, European and the Western world. The proceeding section will discuss the production sales of manufacturing in South Africa.

2.1 Production in Manufacturing

Compounded by the adverse effects of the pandemic large manufacturing companies in South Africa have experienced struggles. Factors that have dragged the local manufacture industry on a year on year growth includes unreliable power supply from ESKOM and the usage imported products instead of locally manufactured goods. Over the course of the last 12 months large manufacturers recorded a decline in their total income earned of -10.6%. Another concerning number is the fact that profit on assets/investments sold or revalued declined by almost 40% over the course of the year. Figure one shows seasonally adjusted volume of manufacturing production in South Africa up to November 2020, the values (in Rand millions) for various iron, metal and steel products manufactured and sold in South Africa. Historically, basic iron and steel products contributed the most to sales of the three categories, but in recent months non-ferrous metals value of goods manufactured sold contributed more to sales than basic iron and steel products (South African Market insights, 2021).

Figure 1: Iron, Metal & Steel Products manufactured & sold in South Africa.



Source: South African Market insights: South African manufacturing Industry, 2021: website.

According to South African Market insights: Manufacturing and economics, as of January 2020 the sales values of the various groups amounted to the following, sorted from highest sales value to lowest sales value:

- Non-ferrous metal products: R13 101 288 000;
- Basic iron and steel products: R8 697 992 000; and
- Structural metal products: R3 107 482 000.

South Africa has an installed annual steel production capacity of 10 million tons and produces approximately 6 million tons per annum. Over the past five years, South Africa average apparent steel production was close to 5 million. In efforts to respond to the pandemic and the economic stagnation experienced in South Africa even prior to the pandemic. In October 2020, the President of South Africa, Mr. C Ramaphosa unveiled the South African Reconstruction and Recovery Plan, this document sets out a plan for the South African economy that aims to stimulating equitable and inclusive growth. Therefore, it is important to look at what industry incentives and support programmes in the South Africa is in place to support enterprises operating in the manufacturing industry.

2.2 Industry Incentives and Support Programmes

In order to promote investment in metal fabrication, the South African government has endeavored to create an enabling environment for the metals fabrication industry. A number of incentive and support programmes exist to increase the size of the industry and its competitiveness. The incentive and support programmes include:

- **Critical Skills Development Programmes:** is a critical skills development programme by the National Tooling Initiative and the National Foundry Technology Network. As of 2020, this programme has developed 11800 students.
- **Downstream Steel Industry Competitiveness Fund:** this fund comes from the Industrial Development Corporation. This fund specifically supports

downstream manufacturers to improve the competitiveness through investments and loans.

- **Competitive Improvement Initiatives (CII) Programmes:** this programme by the National Foundry Technology Network's CII assists foundries with baseline assessments to technology-transfer, lean manufacturing and energy management.
- **Tariff Protection:** the South African government has taken the initiative to protect its industry by implementing a 10% customs duty on primary steel products, as well as tariffs on a variety of downstream products and various rebates.⁶

It is clear that South Africa's manufacturing industry plays a significant role in the economy. Metal and metal fabrication in South Africa has the potential to produce 10 million tons, yet the country is not producing at its maximum capacity. The South African government has put measures in place to promote investment in metal and metal fabrication by developing incentive and support programmes. Despite the efforts made by the South African government, industry participants still experience challenges.

2.3 Industry Challenges

The downstream steel industry include manufactures, end-users, labour, government and they all experience challenges. A 2015 study conducted by Merchantec research categorise the challenges in the down-stream steel industry and rated then either high, medium or low. Table 1 provides a summary of the challenges faced by downstream steel stakeholders. While table two summarizes the challenges and affect it has in the industry.⁷

⁶ The dti. (2020). Investing in South Africa's Metal Fabrication Sector. Accessed from: (http://www.thedtic.gov.za/wp-content/uploads/Steel_Industry_Master_Plan.pdf).

⁷ Merchantec Research. (2015). Industry Challenges and Opportunities. Analysis: Deliverable 3. Accessed from: (<https://solidariteit.co.za/wp-content/uploads/2017/03/Steel-Industry-Challenges-and-Opportunities-Aug-2015.pdf>).

Table 1: Downstream steel industry challenges per stakeholder

Government	Labour	End-users	Manufacturers
Expansion of economic activity	Industry transformation	Quality of product	Unfair competition
Job creation	Wage levels	Volume requirements	Increasing manufacturing costs
BEE compliance	Working conditions	Payment terms	Lack of localization

Source: Merchantec Research, (2015: 7).

Table 2: Downstream steel industry challenges impact

Challenge	Impact				
	Fabricated structural steel	Wire cables &	Fasteners	Specialty steel	Stainless steel
Increased imported products	High	High	High	High	High
Cost of doing business in SA	High	High	High	High	High
Pricing of steel	Medium	High	High	High	High
Tariff levels or value-added products	Medium	High	High	Low	High
Raw Material availability	High	Medium	Medium	High	Medium
BBBEE	High	High	High	High	High
Funding for Associations	High	High	High	High	High
Export challenges into Africa	High	High	High	High	High

Source: Merchantec Research, (2015: 8).

Tables one and two summaries derived from primary research collected from small and large industry companies and industry associations. Therefore, it represents the industry stakeholders' experience (Merchantec Research, 2018: 9).

- **Cost of doing business in South Africa:** has increased in the manufacturing industry. Electricity has increased rapidly since 2009; because the previous prices of electricity did not reflect the actual cost (lack of provision was made for infrastructure), (Merchantec Research, 2015: 12).
- **Labour:** in South Africa has taken the organised labour option, where members can be part of trade unions to represent their interest. The major trade unions in the industry are the National Union of Metalworkers of South Africa (NUMSA) and Solidarity. While, the employer organisation is SEIFSA (Merchantec Research, 2015). The need or skills-based technology has also influenced the labour market in South Africa. South Africa has an undereducated population,

which has resulted in companies struggling to employ people that have the necessary skills. Small and medium enterprises struggle to attract and keep high skilled employees compared to larger enterprises, which further widen the growth between small and bigger firms (Bhorat, Asmal, Lilenstein & van der Zee, 2018).

- **Price of Steel:** remains an issue in South Africa. This is especially the case of larger steel producers such as ArcelorMittal that charge downstream companies similar prices that they would have paid if they imported the steel. This form of pricing is "parity pricing". There is a debate in South Africa around determining the pricing that downstream companies should get because of the country is rich in iron ore reserves and the agreement between Kumba Iron Ore and ArcelorMittal for raw material is at cost plus 3 percent. Nonetheless, the past five-year financials has not been positive for steel manufacturers in South Africa, which was affected by the increase global steel supply (Merchantec Research, 2015).
- **Tariff levels for value added products:** South Africa is as an African country with relatively open tariff system. While globally, unfair practices is an accusation made against Asian steel companies. The most noticeable complaints are against Chinese companies because of the interventions by the Chinese government. The Chinese government has implemented a "strategy of export led growth creation", where the Chinese government is heavily involved as a manufacturer, exporter and rule maker. China produces large amount of steel and sell it below actual cost, as a means to create job opportunities in China and expand their global footprint (Merchantec Research, 2015: 15).
- **Material availability:** majority of South Africa companies indicated that they import steel due to lack of availability from merchants or lack of proper quantities or specific steel grade that are needed is not available. Other countries have also indicated that they go to the extent of importing raw material because it is cost effective (Merchantec Research, 2015). The South African Steel and Metal Fabrication Master Plan has also called for the

procurement by government to boost aggregate demand and ensure that steel intensive products are produced in South Africa. There is a call to promote localization as outlined by Nedlac Economic Recovery Plan (*the dtic*, 2020).

- **Access to funds/ credit:** despite the incentive programmes developed in South Africa, previous studies conducted on manufacturing firms indicate that they still struggle to access funds or credit to establish and grow their small businesses. Credit in the manufacturing industry remains one of the biggest challenges experienced by enterprises. Forty-two percent of participants indicated that they feel excluded from obtaining funds/ credit and resort to saving and borrowing from friends and family members (Bhorat, Asmal, Lilenstein & van der Zee, 2018).
- **Impact of the fourth industrial revolution:** there is no sufficient research available to anticipate the readiness of local metal firms and the dynamics of the fourth industrial revolution (4.0). Furthermore, South Africa has not created and adopted a countrywide central strategy that would drive 4.0 in key industries. Therefore, companies in South Africa are at different stages with adapting to the technological developments (Rasool & Rasool, 2020).
- **Types of Temporary Residence Visas:** The Department of Home Affairs has implemented Business visa for foreigners that are visiting South Africa with the intention of starting businesses. Capital requirements are reduced or entirely waived for foreigners entering into agro-processing, metals and mineral refinement, automotive manufacturing, tourism, crafts, clothing and textile manufacturing, information and communication technology.⁸

The discussion clearly indicate that there are a number of challenges faced by stakeholders within the metal and metal fabrication sector. These challenges persist despite the incentive programmes introduced by the South African government.

⁸ Department of Home Affairs. General information about visas. Accessed from: (<http://www.dha.gov.za/index.php/types-of-visas>).

3. Problem statement

The South African metal fabrication sector is one of the most advanced and diverse sectors compared to other African countries. The sector plays an important role in South Africa because of its spillover effect on other industries such as construction, mining, automotive, cables and structural steel. South Africa has the capacity to produce approximately 10 million tons; however, current production is at 6 million tons per year. According to the International Trade Centre's Trade Map, South Africa exported 158,814 tons of structural metal products to the value of US\$366.9m in 2019. In terms of turnover, according to Statistics South Africa, structural metal products manufacturing sector had an estimated turnover of R47.8bn in 2018.⁹ In 2018, non-ferrous, steel and ferrous metal products and machinery accounted for one-fifth of manufacturing output in South Africa. Figure 2 indicates the provinces with the most metal fabrications activities in South Africa.

Figure 2: Provinces that dominate metal fabrication in South Africa



Source: the dti, 2020:n.p.

⁹ The manufacture of structural metal products in South Africa: Who Owns Whom African Business Information, July 2020

The provinces with the most metal fabrication plants include Gauteng, Mpumalanga, KwaZulu-Natal, Western Cape and the North West Province. Despite, Gauteng being the smallest in terms of size, it houses more metal fabrication plants and has the largest share of the industry compared to other provinces (*the dti*, 2020). Figure 2 indicates that Gauteng specializes in steel products and basic iron and steel. The North West and Mpumalanga in metal products, Kwa Zulu-Natal in aluminum and the Western Cape in basic iron and steel. The problem is that data obtained from the Department of Trade, Industry and Competition's 2020 Fact Sheet on Investing in South Africa's metal fabrication sector, exclude the Free State Province. Obtaining Free State specific data is problematic, metal and metal fabrication is difficult due to lack of data publication from national government. The Free State Province and DESTEA in particular need to obtain data on metal and metal fabrication in the province. The Free State specific information that is required also relates to challenges experienced by enterprises in order for the provincial government to address these challenges.

4. Research objectives

The previous section provided the reader with a literature review on manufacturing industry. Based on the discussion provided, it is clear that there are no Free State Statistics available from key institutions such as Statistics South Africa and the Department of Trade, Industry and Competition. Data is limited to provinces that have large metal and metal fabrication plants. Therefore, the aim of this study is to investigate the manufacturing sector in the Free State with special focus on metal and metal fabrication. The objectives of this study are as follows:

- Provide an overview of the metal and metal fabrication sector;
- Determine challenges faced by enterprises operating in this sub-sector; and
- Provide recommendations based on lessons learned from literature and stakeholders.

5. Research methodology

The research methodology employed for this study was of a qualitative approach. The advantage of utilising qualitative research methodology is its unique manner to provide contextual descriptions of people's experience. It will unpack the "human experience", instead of assumptions on the specific issue.¹⁰ One of the tools utilised in this study was a qualitative survey that allowed respondents to express their opinions and experiences.¹¹ The survey consists of both open-ended and close-ended questions. The geographical area selected for this study was the Mangaung Metropolitan Municipality area with a special focus on the township and informal manufacturing. A total of n=24 surveys were collected in Mangaung Metropolitan Municipality of which, n=15 were in Bloemfontein. Contextual analysis took place and cross-reference with the information provided by the participants.

SECTION B: ECONOMIC AND SECTORIAL OVERVIEW

6. Economic Overview

The Free State Province with a Gross Domestic Product (GDP) of R252 billion in 2020 contributed 5.06% to the South African GDP of R 4.97 trillion in 2020. This increased its share of the national total from 5.36% in 2010. In 2020, the Free State Province achieved an annual growth rate of -7.41%, which is a slightly lower growth rate, than that of South Africa as a whole, where the 2020 GDP growth rate was -6.96%. In 2020, the community services sector was the largest sector within Free State Province accounting for R 59.4 billion or 26.2% of the total gross value added (GVA) in the province's economy.¹² The sector that contributes the second most to the GVA of the Free State province is the finance sector at 16.5%, followed by the trade sector with 13.5%. The sector that

¹⁰ Family Health International. (n.p). Qualitative Research Methods: A Data Collector's Field Guide. Retrieved from: (<https://course.ccs.neu.edu/is4800sp12/resources/qualmethods.pdf>).

¹¹ Survey & questionnaires. Retrieved from: (<https://deakin.libguides.com/qualitative-study-designs/surveys>).

¹² IHS Markit Regional eXplorer. Free State Overview. Free State, Bloemfontein.

contributes the least to the economy of Free State Province is the construction sector with a contribution of R 4.67 billion or 2.06% of the total GVA. Similar to the short-term growth rate of 2020, the longer-term average growth rate for the Free State (0.13%) is also slightly lower than that of South Africa (0.64%). The economic growth in Free State peaked in 2012 at 3.00%. For the period 2010 to 2020, the average annual growth rate of 0.1% of Free State was the eighth relative in terms of growth in constant 2010 prices.¹³ Table 1 represents of the GVA by broad economic sectors of the Free State province and its share as a percentage to the national total. For our research the highlight is on the manufacturing sector whose gross value added is 22.3% of the province, which represents 3.9% as a share of the national total. Manufacturing in the Free State is the third largest contributor to the GVA after agriculture (11.9%) and mining (7.5%). The lowest contributor to the GVA is construction, recording a mere 3.3%.

¹³ IHS Markit Regional eXplorer. Free State Overview. Free State, Bloemfontein.

Table 3: Gross Value Added (GVA) by broad economic sector - Free State province, 2020
[r billions, current prices]

	Free State	National	Free State as % of National
Agriculture	14.2	119.6	11.9%
Mining	27.8	371.9	7.5%
Manufacturing	22.3	573.4	3.9%
Electricity	8.8	167.2	5.2%
Construction	4.7	140.2	3.3%
Trade	30.5	655.2	4.7%
Transport	21.3	396.4	5.4%
Finance	37.3	879.5	4.2%
Community service	59.4	1,125.3	5.3%
Total Industries	226.4	4,428.3	5.1%

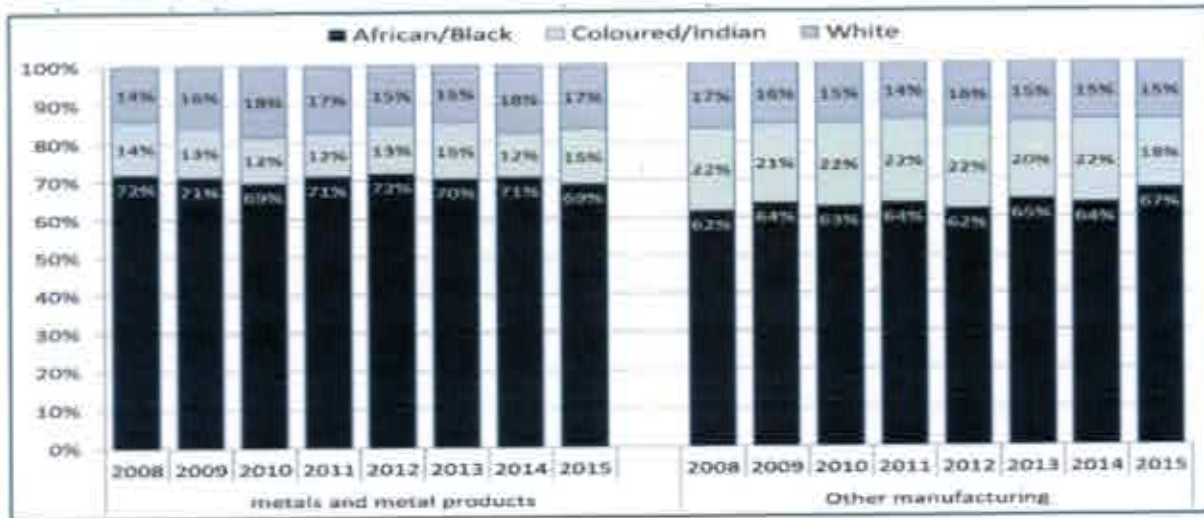
Source: IHS Markit Regional eXplorer version 2142

Table 3 illustrates of the GVA by broad economic sectors of the Free State province and its share as a percentage to the national total. The data represented in table three shows that there is room for improvement for the manufacturing industry. The next section provide the reader with a brief discussion on employment within the industry.

6.1 Employment in Metal And Metal Products

In terms of employment in the industry, Africans are more likely to be in the manufacturing industry, while Coloured and Asians make up a smaller portion. In 2015, Africans made up 69% of employment in metals and metal products and 67% in other manufacturing Figure 3 illustrates the employment in metal and metal products (TIPS, 2017: 5-6).

Figure 3: Employment in metal and metal products by race



Source: TIPS, 2017: 6.

In terms of gender, females accounted for 12% of the labour force in metals and metal products and less than 50% of the rest of manufacturing industry. A mere one in 20 women are employed were in metal and metal products. While, men make up one in five males in manufacturing work in metal and metal products (TIPS, 2017). The industry also experienced some job losses between 2010 and 2019. Table 4 indicates the number of jobs that were loss in the different sub-sectors.

Table 4: Loss of employment in the industry

INDUSTRY	2010	2019	2019 vs 2010
Basic Iron and steel	44,965	29,095	-35%
Basic precious and non-ferrous metals	23,767	15,213	-36%
Casting of metals	4,108	4,342	6%
Structural metal products, tanks, reservoirs and steam generators	43,197	37,422	-13%
Other fabricated metal products; metal work service activities	67,659	65809	-3%

Source: the dti, 2020: 8.

Table 4 indicate that between 2010 and 2019, the manufacturing industry experienced a number of job losses. Most noticeably in the basic iron and steel subsector, which decreased by 35% and in the basic precious and non-ferrous metals jobs decreased by 36%. The subsector that experienced the least number of job losses were in other fabricated metal products and metalwork services activities, with a decrease of only 3% (*the dti*, 2020). The number of jobs that were loss over the past nine years should be a major concern. Unfortunately, the information did not provide a provincial breakdown of where job were loss at provinces level.

7. Overview of Metal and Metals fabrication sector in the Free State

The metal sector is at the epicenter of economic development. The metals sector produce is utilised across the entire economy from mining, infrastructure programmes, construction, and transport all the way to general household appliance. The price of some commodities has soared, including the prices of prominent industrial metals. *Why have metals prices increased more than other commodities?* There are four reasons:

1. **A manufacturing-based recovery:** Manufacturing activity did not slump as much at the start of the pandemic and recovered more quickly than services, especially in China, which is the major user of metals.
2. **Supply-side factors:** Many mining operations impacted by the outbreak of COVID-19. Freight rates for the transportation of bulk materials reached a ten-year high due to congestion in key ports. Furthermore, quarantine restrictions and ongoing problems staffing shipping crews.
3. **Expectations for faster energy transition and infrastructure spending:** Great expectations about the pace of the transition to a greener economy and ambitious infrastructure programs gave metals prices an additional boost. It would increase the "metal intensity" of the global economy. A fast energy transition, for example, could require a 40-fold increase in the consumption of lithium for electric cars and renewables, while the consumption of graphite, cobalt, and nickel for these purposes may rise around 20 to 25 times, according to the International Energy

Agency. Ambitious infrastructure programs in the European Union and the United States would drive up the demand for copper, iron ore, and other industrial metals.

4. **Storability of metals:** Metals are easier to store than crude oil or some agricultural goods, which need special facilities. This makes their pricing more forward looking and thus, more sensitive to changes in interest rates. The lower interest rates reduce the "cost of carry," which also includes cost of storage, insurance, and other expenses, and, thus, tend to support commodity prices and market expectations, such as the ones about a faster energy transition and infrastructure spending.¹⁴

In the Free State, the metal products subsectors are highly concentrated in three municipalities namely Mangaung, Metsimaholo and Matjhabeng. Mangaung's metal products subsectors contribute the most to the GVA and recorded R677 million, Metsimaholo contributes R451 million and Matjhabeng contributes R411 million. The remaining municipalities in the Free State reported metal products GVA with a minimum contribution of R20 million, but not higher than R128.¹⁵ Table 5 indicates the steels and metal fabrication sector statistics. A comparison between the Free State and national contribution illustrated in the table below.

Table 5: Steel and Metals Fabrication Sector

Items	Free State	South Africa
Share of manufacturing sector GVA (2019)	10%	19%
Gross value added at basic prices (2019)	R2,234 billion	R71,676 billion
Share of Manufacturing Sector Employment (2019)	16%	22%
Total employment (2019)	9,824	333,092
Contribution to Growth in Real GVA: 2014 to 2019	-5.5%	-0.9

¹⁴ International Monetary fund blog: Four Factors Behind metals price rally. <https://blogs.imf.org/2021/06/08/four-factors-behind-the-metals-price-rally/>

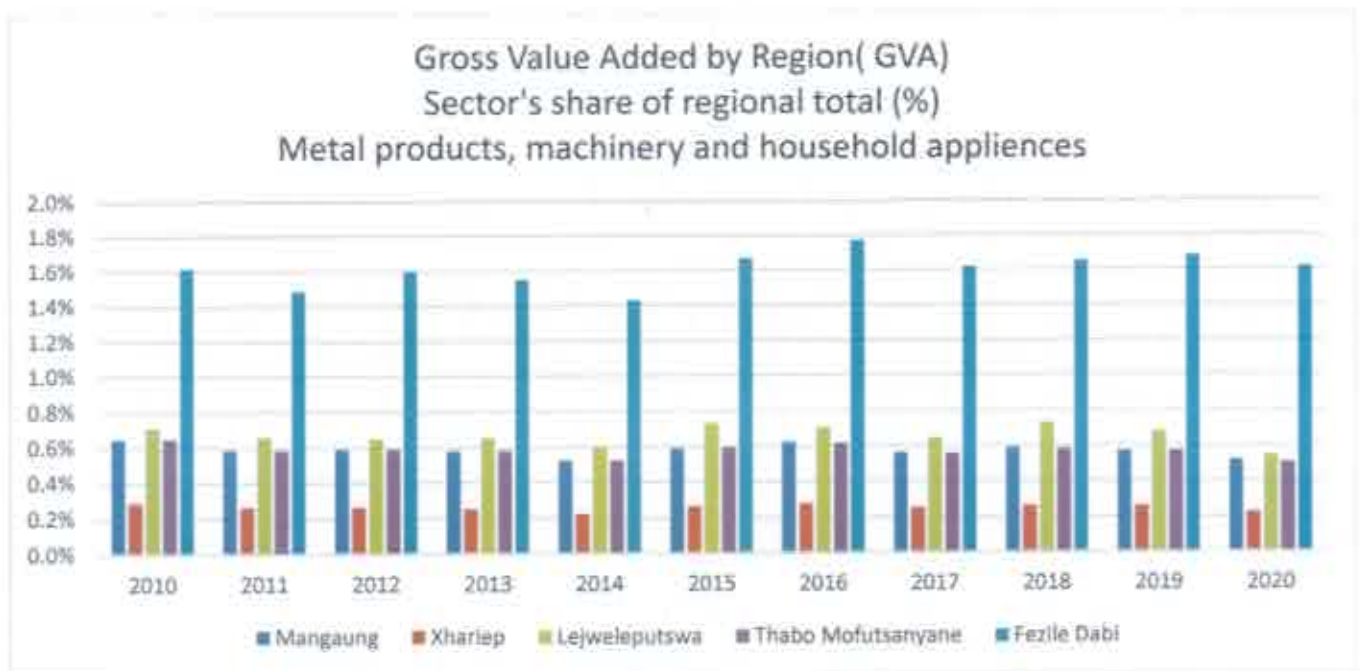
¹⁵ Steel and metals fabrication sector master planning process: DESTEA. 2021.

Contribution to Growth in Employment: 2014 to 2019: Free State	-2.8%	-1.9%
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Source: Quantec Standardized Regional Database, 2021 within DESTEA, 2021.

The steel and metals fabrication sector experienced a negative contribution of -5.5% towards the Free State economy between 2014 and 2019. During the same period in question, the employment made a negative contribution of -2.8 in the Free State and -1.9 towards the national contribution.¹⁶ Figure 4 indicates the Gross Value Added (GVA) by the manufacturing sector within the Free State District Municipalities. Fezile Dabi District municipality had the highest average growth rate. While Xhariep District municipality had the lowest average growth rate for the period of 2010 to 2020.

Figure 4: GVA of Free State Metal products, machinery and household appliances 2010-2020



Source: IHS Markit Regional eXplorer

¹⁶ DESTEA. (2021). Steel And Metals Fabrication Sector Master Planning Process. Free State, Bloemfontein.

7.1 Characteristics of steel and metals fabrication sector in the Free State

The characteristics of the metal sector in the Free State derive from the stakeholder engagement and SWOT (strength, weakness, opportunities and threats) within the sector. Therefore, the characteristics of the metal sector are as follow:

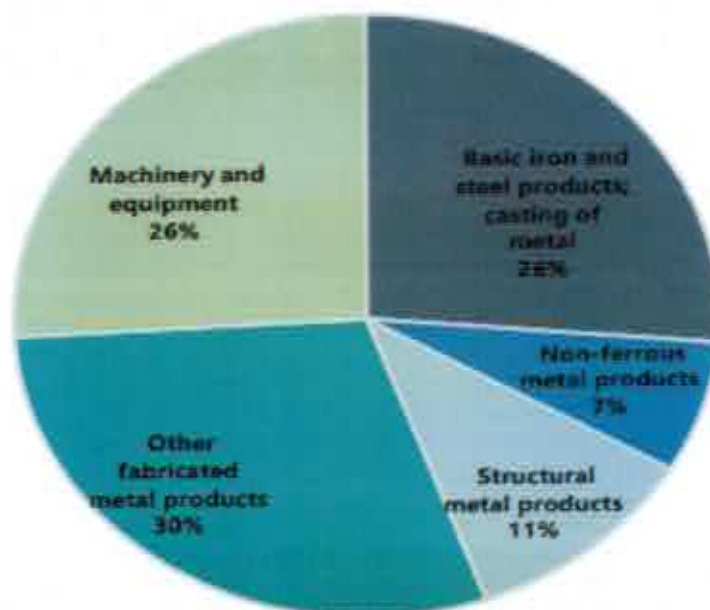
- The steel and metal fabrication sector contributed a mere 1% to the Free State GVA, significantly smaller than the other 13 sectors, despite it being larger than eight of the other sectors. During the period of 2014 and 2019, the sector's GVA contracted by an average of 0.2%. However, determining the importance of the sector should not be limited to its contribution to the GVA. The upstream and downstream linkages of the sector and other sectors also play a significant role. In 2019, the economic value chain generated additional sales of R3.22 for every R1 spend.
- In 2019, other fabricated metals products contributed 30% to the sector GVA, followed by basic iron and steel products and metals casting and machinery and equipment (both contributing 26%), while structural metal products contributed 11% and non-ferrous metal products contributing the least with 7%.
- The steel and metal fabrication sector has been on the decline yet volatile demand for products. This is a direct result of capital relative to most other sectors. Unfortunately, there are no provincial data available; the average gross markup for the sector at national level was a mere 5.5% between 2015 and 2020.¹⁷ Compared to other sectors, mining and quarrying (56.5%), electricity, gas and water (55.5%), wholesale and retail trade (51.7%), transport and storage (51.2%) and agriculture, forestry and finishing (50.4%).¹⁸
- The sector is considerably a capital-intensive sector and therefore entrepreneurs require large initial capital investments for small and medium operations. Despite, high initial investments, returns are often insufficient which makes it difficult for

¹⁷ *(the ratio of the gross operating surplus to the sum of intermediate and factor inputs.)

¹⁸ DESTEA. (2021). Steel And Metals Fabrication Sector Master Planning Process. Free State, Bloemfontein.

firms to reinvest into their firm. This is a major challenge for new entrants and increasing black ownership in the sector.

Figure 5: Composition of steel and metals fabrication GVA in the Free State in 2019



Source: DESTEA, 2021: 14

Figure 5 illustrates the steel and metal fabrication GVA in the Free State. The biggest contributors in 2019 were machinery and equipment and basic iron and steel products; casting of metal (each contributing 26%). The second largest contributor was fabricated metal products (30%), followed by structural metal products (11%) and the least contributor to the GVA was non-ferrous metal products at 7%.¹⁹ The proceeding section will outline the findings from the survey administered to Mangaung Metropolitan Municipality enterprises operating in this industry.

¹⁹ DESTEA. (2021). Steel And Metals Fabrication Sector Master Planning Process. Free State, Bloemfontein.

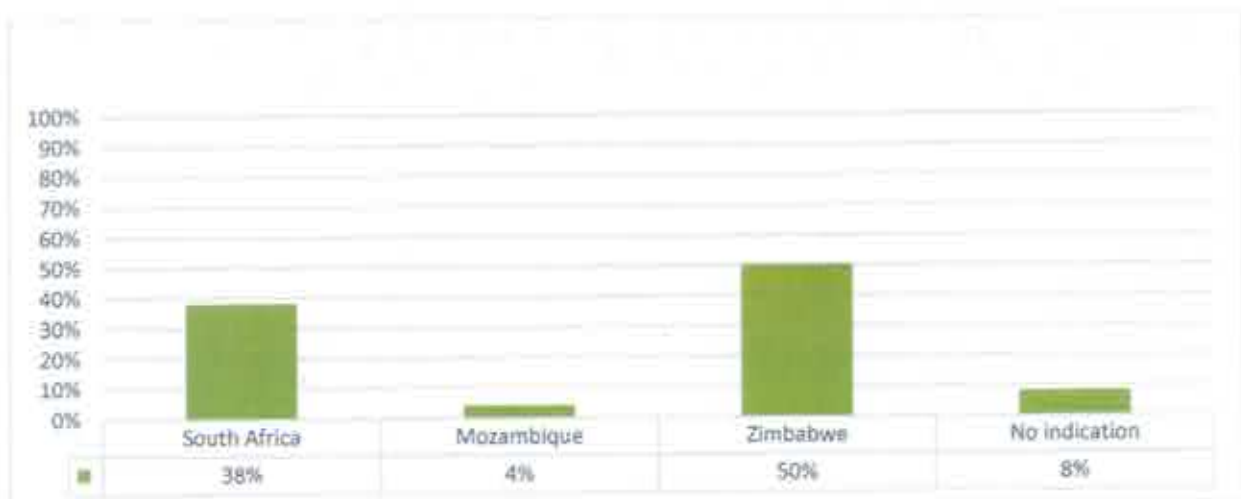
SECTION C: RESEARCH FINDINGS AND RECOMMENDATIONS

8. Research Findings

The manufacturing industry plays a significant role in the South African economy, being the country's fourth largest industry contributing 14% to the gross domestic product (GDP). In terms of gross value added (GVA) the Free State province only contributes 3.9% to the national manufacturing total. In terms of employment in the industry, Africans are more likely to be in the manufacturing industry. In terms of gender, females only accounting for 12% of the labour force, with only 1 in 20 women employed in metal and metal products. While, men make up one in five males in manufacturing work in metal and metal products.

The geographical area selected for this study is the Mangaung Metropolitan Municipality area with a special focus on the township and informal manufacturing. A total of n=24 surveys were collected in Mangaung Metropolitan Municipality of which, n=15 were in Bloemfontein. The overall data indicates that only 38% of the business owners originate from South Africa, followed by 4% from Mozambique while 50% originate from Zimbabwe. Eight percent (8%) of the participants did not indicate their country of origin.

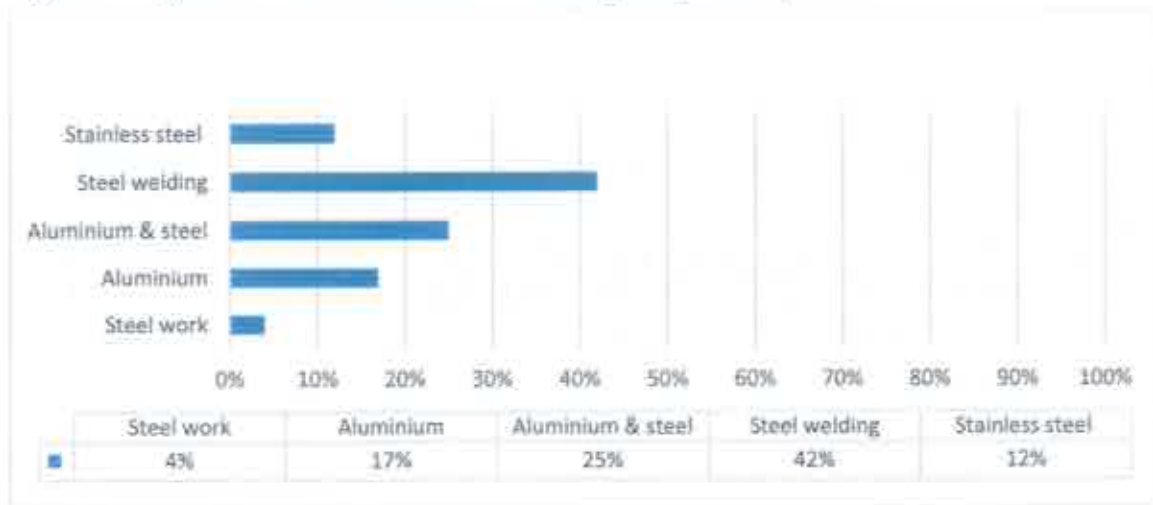
Figure 6: Country of Origin: Mangaung Metropolitan Municipality



Types of Metal Fabrication

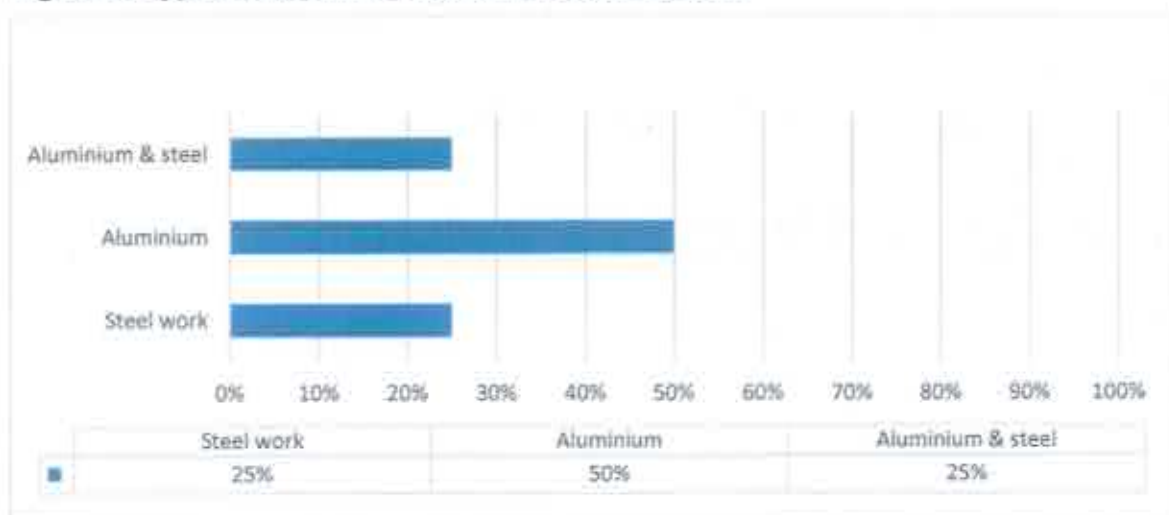
The overall types of metal fabrication in the Mangaung Metropolitan area include; steel welding (4%), followed by aluminum and steel (2%), pure aluminum (17%) and stainless steel accounting for (42%).

Figure 7: Types of metal fabrication in Mangaung Metropolitan area



The type of metal products that dominate in Bloemfontein are aluminum (50%), followed by aluminum and steel (25%) and steel work (25%).

Figure 8: Types of Metal Fabrication in Bloemfontein



Business Operations

The survey sought to understand the business operations of enterprises operating with metal and metal products. The feedback obtained from participants indicates that the average start-up capital required is approximately R7 393.75, while monthly expenses are R7 500.00 per month. The average monthly turn-around profit recorded was R14 208.33. Previous research conducted indicate that the overall cost of doing business in South Arica is expensive. Data provided, indicate that monthly expenses of the participants are almost around the same value it cost to start of small business. However, is should be noted, that not all the participants were eager to share their financial estimation. All the participants indicated that they have some form of training, which was not necessarily formal. Table 6 is a summary of the data obtained from the participants.

Table 6: Business Operation

Item	Consolidated value	Average value
Start-up capital	R177 450.00	R7 393.75
Monthly expenses	R180 000.00	R7 500.00
Turn around profit	R341 000.00	R14 208.33

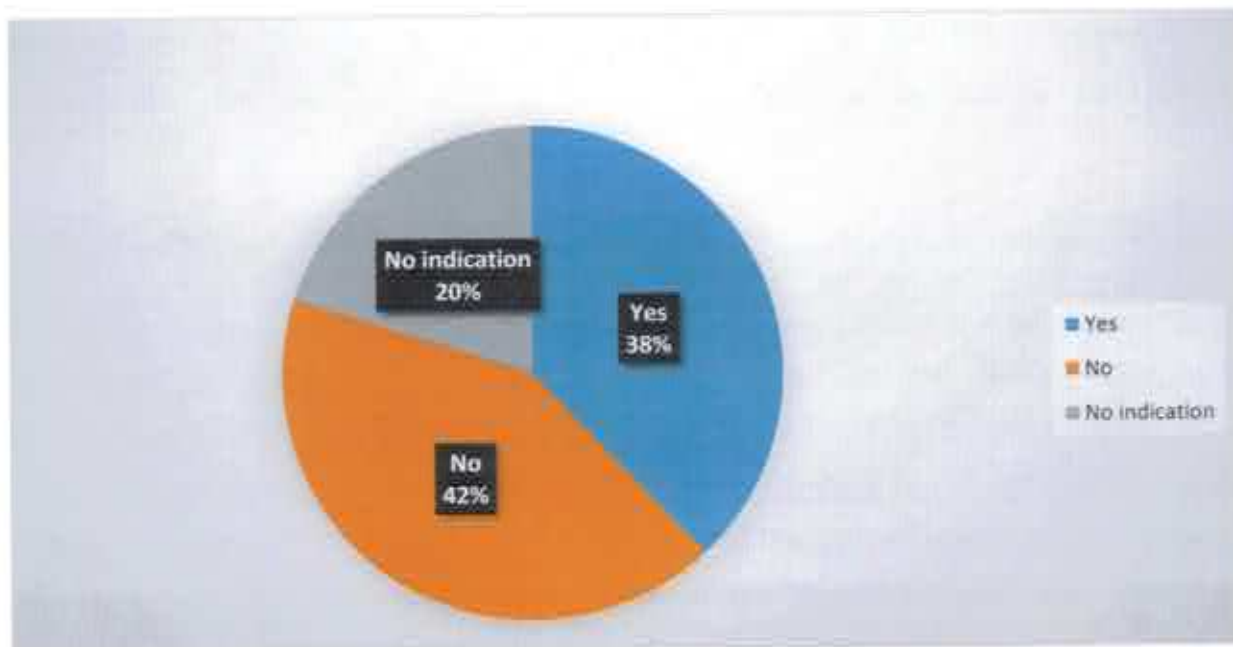
*Based on data obtained, not all participants were transparent.

Challenges Experienced

The survey sought to determine the challenges experienced by enterprises operating in the steel industry. According to the feedback obtained, the biggest challenges experienced by enterprises operating in the metal industry relates to competition from foreign-owned businesses. Thirty-three percent (33%) of the participants indicated that their biggest competition is foreign-owned businesses. There is a correlation between data obtained and the position taken by the South African government in decreasing or waiving the capital requirements of foreigners entering South Africa to operate in the metal and metal fabrication sector. This incentive clearly promotes foreigners entering into the market and competing with South African enterprises. In terms of being value added tax (VAT) compliant, data indicates that 25% of the participants that originate from

Zimbabwe businesses are not VAT registered, meaning they do not pay taxes. While, 12% of the South African participants are not VAT registered. This defeats the purpose of ensuring government collect taxes, when foreign-owned businesses entering South Africa avoid paying taxes. Concerning registered companies, the majority of the participants (42%) indicated that their companies are not registered, (38%) are registered and (42%) choose not to disclose this information as indicated in figure nine.

Figure 9: Registered companies in Mangaung Metropolitan Municipality



Funding/ credit requirements/ cash flow

Thirteen percent (13%) of the participants highlighted lack of capital and slow payments of credit clients as another major challenge. Previous studies conducted indicates that lack of capital and access to credit remains a challenge. There is a clear correlation between feedback obtained from participants and previous research studies. This may be due to the price of steel in South Africa and importing steel from other countries due to cost effectiveness.

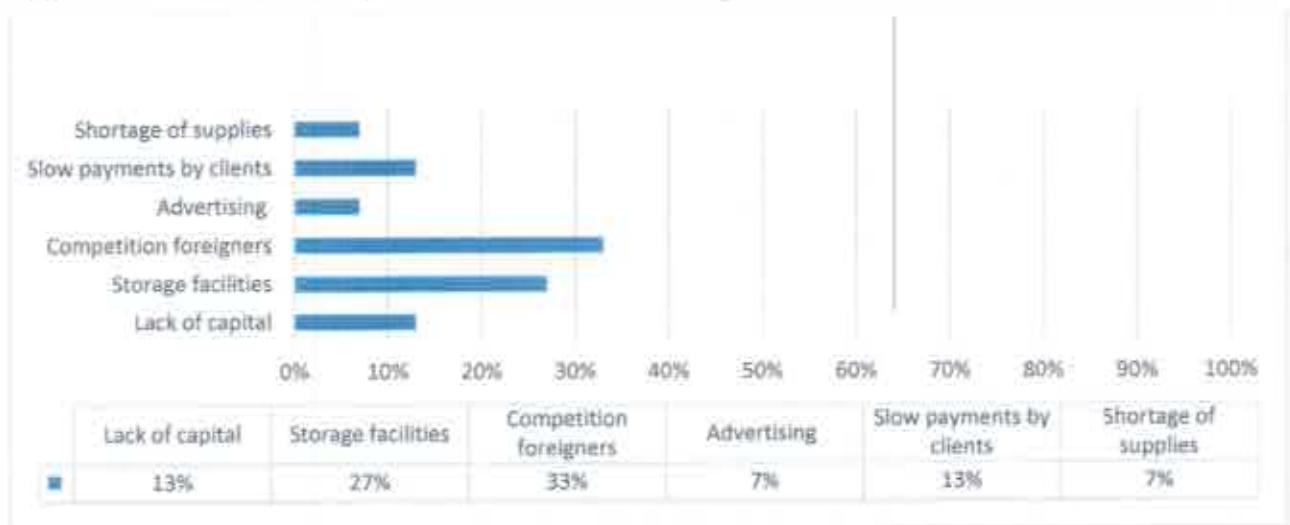
See quotes below from some participants.

"Difficult to register, my current permit will expire and I wonder if it will be renewed and I need operational space. In Zimbabwe, carpentry, welding and building are taught in school" – MSQ17

"Slow payments by clients, sometimes you must call *wanya tsotsi*. People delete and block you. People came in a bakkie and stole" –MSQ10

"Crime and people call or a quote, but when you get there they are away. Travelling for nothing" – MSQ21

Figure 10: Challenges experienced in metal industry

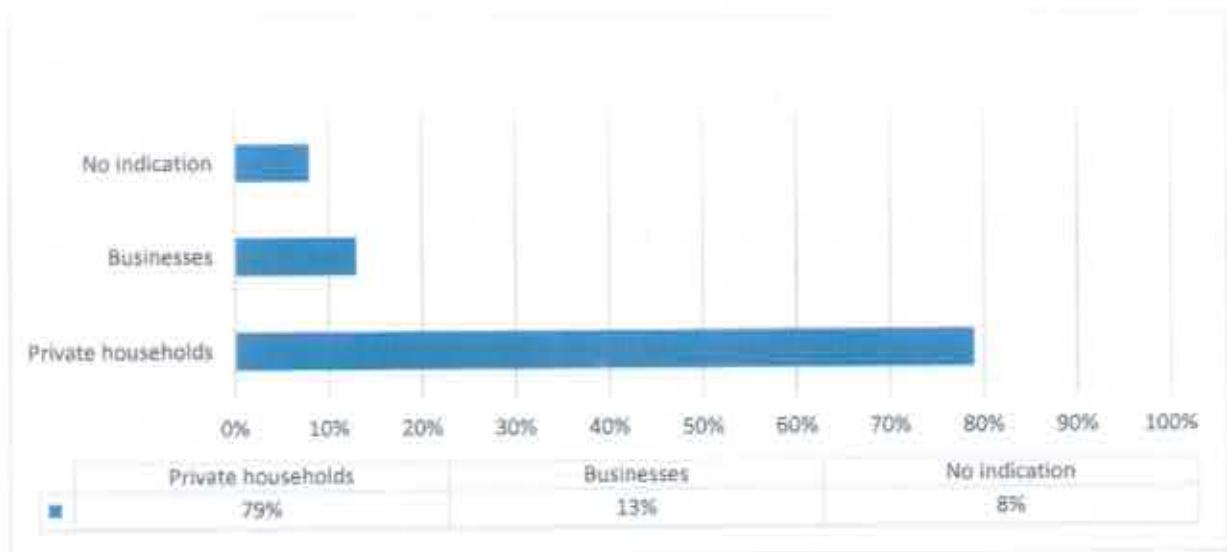


The challenges listed by the participants includes lack of capital (13%), storage facilities (27%), competition from foreigners (33%), advertising (7%), slow-paying clients (13%) and shortage of supplies (7%). There is a correlation between feedback obtained and previous research conducted. The 2015 study by Merchantec Research found that there is a shortage of supply in South Africa due to lack of proper quantities or specific steel grade. Furthermore, the study found that South African companies opted to import steel due to cost effectiveness especially from China. See comments below from one of the participants.

"Material high cost, clients complain, clients complain, so it provides a challenge for profits, when price goes up" – MSQ4

"Price hikes, credit customers don't pay in full. Availability of material sometimes must go to JHB. Government does give startups work. Like if a school needs works they contract big company" –MSQ17

Figure 11: Main Customers



Participants indicated that their products are consumed by 79% private households, followed by businesses (13%) and 8% of the participants did not provide an answer. The survey also wanted to determine where Mangaung-based companies obtained their supplies. Figure 12 below indicates where obtain their supplies.

Figure 12: List of Suppliers

1. East-end,
2. Bowen & Sons
3. Stewards and Lloyd
4. Mac Steel
5. DIY
6. Kotsong Build
7. Cash build
8. Other firms

9. Recommendations & conclusion

The reader is reminded that the objectives of this study was to:

- Provide an overview of the metal and metal fabrication sector;
- Determine challenges faced by enterprises operating in this sub-sector and
- Provide recommendations based on lessons learned from literature and stakeholders.

(1) The literature review indicates that the metal and metal fabrication sector plays a significant role in the South African economy and that of the Free State. In the Free State, the manufacturing industry was the third largest contributor to the GVA in 2020, after agriculture and mining. The steel and metal fabrication sector contributed a mere 1% to the Free State GVA, significantly smaller than the other 13 sectors. Indicating that there is room for improvement to support enterprises operating in this industry and metal and metal fabrication as subsector. During the period of 2014 and 2019, the sector's GVA contracted by an average of 0.2%. During the nine year period between 2010 and 2019, the manufacturing subsectors experienced a number of job losses, especially in basic precious and non-ferrous metals, which decreased by 36%. Unfortunately, provincial statistics was unavailable only the overall job losses. The study found that metal products

subsectors dominate in Mangaung, Metsimaholo and Matjhabeng municipalities. The report determined that Mangaung Metropolitan Municipality has the highest contribution towards the GVA, at R677 million in the Free State.

- (2) The survey attempted to determine the challenges experienced by enterprises within the metal and metal fabrication sector. According to the data obtained from participants, challenges relate to; lack of funds, rapid increase in the price of steel, lack of operational space, slow-paying customers and access to markets. Based on the feedback obtained, it is evident that this subsector has many foreign-owned businesses, most notably from Zimbabwe. In terms of lack of funding, the South African government has made provision for incentive and development programmes. It is recommended that the Free State Government organise an information session for enterprises in this sector in collaboration with *the dtic* to unpack the opportunities available to stakeholders. Management training and development sessions to be organised to assist business owners to find innovative ways to deal with slow-paying customers and access to markets.
- (3) DESTEA should arrange a dialogue with enterprises operating in this subsector to determine the extent of operational spaces that are required. DESTEA to engage strategic partners such as National Youth Development Agency, Free State Development Corporation and the Industrial Development Corporation to determine how government can intervene with operational space and funding requirements. Skills development on a local front, in the sector is also key area to focus on to get more South African and female participation in the sector. The Department should also engage with the private sector and enterprises to see if collective bargaining would be possible, because majority of the participants complained about the price of metal.
- (4) Additional research should be conducted in the other two areas in the Free State namely Metsimaholo and Matjhabeng municipalities to draw a comparative analysis on challenges that are facing enterprises.

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Annexure B: Database of manufacturing companies

Manufacturing companies in Free State Province	No of companies	Company profile & revenue sales
Bloemfontein	88 ¹	<ol style="list-style-type: none"> 1) See Annexure A (88 according to BND Directory) 2) Marley Pipe Systems BFN² (Aluminum & alloys, basic metals). 3) Afrit Bloemfontein² (Semi-manufactured products, aluminum & its alloys) 4) Gundie Bloemfontein² (Semi-manufactured products, aluminum & its alloys). 5) Halsted Bloemfontein² (mining & industrial equipment supplies) 6) Ezee Tile Adhesive Manufacturers (PTY) LTD² (Semi-manufactured products, aluminum & its alloys). 7) Sonae Arauco Free State² (Semi-manufactured products, aluminum & its alloys). 8) Corobrik Bloemfontein² (clay brick manufacturers). 9) Cloud Nine Free State² (mattress manufacturers). 10) Nutri Feeds Bloemfontein² (animal feed manufactures). 11) Beka Schreder Bloemfontein² (lighting product manufacturers). 12) Denver Mining & Industrial Supplies (PTY) LTD² (mining & industrial equipment). 13) SCP Polycloth Manufacturing (PTY) LTD² (Semi-manufactured products, aluminum & its alloys). 14) Lurama 149 (PTY) LTD IMPA Paints² (semi-manufactured products, aluminum & its alloys). 15) Sheet Plastics (PTY) LTD² (Semi-manufactured products, aluminum & its alloys). 16) Dawn Kitchen Fittings (PTY) LTD² (Kitchen & fittings manufacturing). 17) Itau Animal Feeds (PTY) LTD² (manufacturing of animal feed). 18) SA Truck Bodies (PTY) LTD² (manufacturing of truck parts & trucks). 19) HDL Diamonds CC² (manufacturing jewelers). 20) WGK Construction (PTY) LTD² (steel manufacturing and construction services). 21) Pro-Crete² (concrete manufacturers). 22) FS Transformers (PTY) LTD² (Semi-manufactured products, aluminum & its alloys).
	32 ²	
	Grand total: 120	

		<p>23) C&H Joinery (PTY) LTD² (wooden products manufacturers).</p> <p>24) Southern Cross Industry (PTY) LTD² (pumps & windmill manufacturers).</p> <p>25) OFS Canvas (PTY) LTD² (tents, marquee & awnings manufacturing).</p> <p>26) Omega Gas & Lubricants (PTY) LTD² (lubricants manufacturers).</p> <p>27) The Image Wardrobe² (Cosmetic product manufacturing).</p> <p>28) Siteform Framing (PTY) LTD² (light steel structures manufacturing).</p> <p>29) Annco Business Trust² (mining & industrial equipment).</p> <p>30) Central Signs² (signage manufacturers).</p> <p>31) Bloemfontein Custom Rifles CC² (custom rifles manufacturers).</p> <p>32) Cem Brick Manufacturers CC² (brick manufacturing).</p> <p>33) Stucco Italiano Free State² (manufactures a range of cementations and concrete products, colour plasters for floors & walls, ground & polished concrete floors and countertops to industrial flooring products).</p>
Kroonstad	13	<p>1) CC Holdings (PTY) LTD Sales Revenue (\$M): 3.12M</p> <p>2) OCTA Hoppers (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>3) Kroonstad Number Plate Centre CC Sales Revenue (\$M): 0.58M</p> <p>4) A EN H Kombuise CC Sales Revenue (\$M): 0.58M</p> <p>5) Frankly Engineering CC Sales Revenue (\$M): 0.58M</p> <p>6) Gibb's Cabinet Works (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>7) SABOU CC Sales Revenue (\$M): 0.58M</p> <p>8) Polaro INDUST-AG (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>9) Kroon Gieterij en Staal (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>10) SA Timber (Kroonstad) PTY LTD Sales Revenue (\$M): 0.37M</p> <p>11) Maizemaster CC Sales Revenue (\$M): 0.25M^{1, 2}</p>

		<p>12) Maximill Roller Mill CC Sales Revenue (\$M): 0.15M</p> <p>13) BB Trailers & Tools Hire CC² (trailer manufacturer & repairs)</p>
Sasolburg	11	<p>1) FTM Garments (PTY) LTD Sales Revenue (\$M): 6.24M</p> <p>2) Highpoint Manufacturing (PTY) LTD Sales Revenue (\$M): 4.13M</p> <p>3) Free State Malt (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>4) SOS Signs CC Sales Revenue (\$M): 0.58M</p> <p>5) Teks Optical (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>6) Sagi Investment Co (PTY) LTD Sales Revenue (\$M): 0.42M</p> <p>7) Oil Number Plates and Signs CC Sales Revenue (\$M): 0.42M</p> <p>8) ACT Manufacturing CC Sales Revenue (\$M): 0.58M</p> <p>9) Quality Sieve Services CC Sales Revenue (\$M): 0.12M</p> <p>10) Pyramid Sportswear and Screenprint CC Sales Revenue (\$M): 0.08M</p> <p>11) Top Vet Medical Supplies CC Sales Revenue (\$M): 0.04M</p>
Bothaville	5	<p>1) DV Boustaal CC Sales Revenue (\$M): 0.58M</p> <p>2) PKR Nywerhede CC Sales Revenue (\$M): 0.58M</p> <p>3) Bothaville Slypwerke CC Sales Revenue (\$M): 0.58M</p> <p>4) ASM Ingenieurs CC Sales Revenue (\$M): 0.58M</p> <p>5) Sealchem CC² (sealing products manufacturers).</p>
Botshabelo	3	<p>1) Joroy 0014CC</p>

		<p>Sales Revenue (\$M): 3.1M</p> <p>2) DAF Boerdery (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>3) Sunny Bag CC Sales Revenue (\$M): 0.42M</p>
Welkom	23 ¹ 6 ²	<p>1) See Annexure A</p> <p>2) Meadow Feeds Welkom² (production of animal feed)</p> <p>3) Sibanye Gold Beatrix Gold Mine² (precious & rare metals and their alloys).</p> <p>4) Halsted Welkom² (mining and industrial equipment supplies).</p> <p>5) Bafotech (PTY) LTD² (underground scraper manufacturing).</p> <p>6) Anglo Gold Harmony Tshepong Mine² (basic metal products).</p> <p>7) Blockpave (PTY) LTD² (paving & bricks manufacturers).Kroo</p>
Bethlehem	12	<p>1) Brick Mecca CC Sales Revenue (\$M): 0.99M</p> <p>2) Maluti Biscuits Cape CC Sales Revenue (\$M): 0.87M</p> <p>3) Tokman CC Sales Revenue (\$M): 0.58M</p> <p>4) Rolo Voermengers CC Sales Revenue (\$M): 0.58M</p> <p>5) Pro Medals CC Sales Revenue (\$M): 0.58M</p> <p>6) CAP's Bakery (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>7) Amingos Packaging CC Sales Revenue (\$M): 0.58M</p> <p>8) Nortje Kabinetmakers CC Sales Revenue (\$M): 0.58M</p> <p>9) Tentco Traders CC Sales Revenue (\$M): 0.27M</p> <p>10) Unity Garage Doors (PTY) LTD Sales Revenue (\$M): 0.27M</p> <p>11) ICM Manufacturing CC Sales Revenue (\$M): 0.23M</p> <p>12) Golden Poplar Foods CC Sales Revenue (\$M): 0.58M</p>
Harrismith	13	<p>1) Crown Bag (PTY) LTD</p>

		<p>Sales Revenue (\$M): 3.3M</p> <p>2) Monn Carpets (PTY) LTD Sales Revenue (\$M): 1.2M</p> <p>3) Hardware Mecca (PTY) LTD Sales Revenue (\$M): 1.04M</p> <p>4) Whey-farmgold Foods CC Sales Revenue (\$M): 0.91M</p> <p>5) Sehlajaneng Woodwork CC Sales Revenue (\$M): 0.58M</p> <p>6) Entrakor (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>7) Tuff Doors (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>8) Staalsak CC Sales Revenue (\$M): 0.58M</p> <p>9) Empire Gloves (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>10) Proton Textiles CC Sales Revenue (\$M): 0.58M</p> <p>11) Eagle Farm Feeds (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>12) Ventolite Blinds CC Sales Revenue (\$M): 0.0M</p> <p>13) Boxmore Plastics (SA) (PTY) LTD² (plastic packaging manufacturers)</p>
Parys	6	<p>1) Staywarm (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>2) Praehauser CC Sales Revenue (\$M): 0.58M</p> <p>3) Tombstone and Monuments (PTY) LTD Sales Revenue (\$M): 0.58M</p> <p>4) Parys Tool and Die CC Sales Revenue (\$M): 0.58M</p> <p>5) Agape Houtwerke CC Sales Revenue (\$M): 0.58M</p> <p>6) Staycold (PTY) LTD² (refrigeration manufacturers).</p>

Virginia	4	<ul style="list-style-type: none"> 1) SA Timber (Virginia) (PTY) LTD Sales Revenue (\$M): 1.35M 2) Repairite Products CC Sales Revenue (\$M): 0.58M 3) BR Bricks CC Sales Revenue (\$M): 0.58M 4) Vescoplastics Sales (PTY) LTD Sales Revenue (\$M): 0.50M
Brandfort	3	<ul style="list-style-type: none"> 1) Moreson Veevoere (PTY) LTD Sales Revenue (\$M): 0.58M 2) Sumfra Meubels CC Sales Revenue (\$M): 0.58M 3) Po Ho Malt Products CC Sales Revenue (\$M): 0.52M
Henneman	3	<ul style="list-style-type: none"> 1) Henneman Apteek CC Sales Revenue (\$M): 0.58M 2) Montana Kombuise CC Sales Revenue (\$M): 0.58M 3) Unique Clamps Trust Sales Revenue (\$M): 0.58M
Clocolan	3	<ul style="list-style-type: none"> 1) Bio Sculpture South Africa (PTY) LTD Sales Revenue (\$M): 2.08M 2) Trophy Hunters Taxidermy CC Sales Revenue (\$M): 0.58M 3) Highland Essential Oils CC Sales Revenue (\$M): 0.58M
Reitz	3	<ul style="list-style-type: none"> 1) Arta Masjienerie CC Sales Revenue (\$M): 0.58M 2) Gert Tack Staal en Konstruksie CC Sales Revenue (\$M): 0.58M 3) Bio Diesel Technologies CC Sales Revenue (\$M): 0.42M
Villiers	3	<ul style="list-style-type: none"> 1) Kole Staalwerke (PTY) LTD Sales Revenue (\$M): 0.58M 2) Somill CC Sales Revenue (\$M): 0.58M 3) Pro-rata Meulens (PTY) LTD Sales Revenue (\$M): 0.58M
Ailiwal North	2	<ul style="list-style-type: none"> 1) Makeshift 1099 (PTY) LTD Sales Revenue (\$M): 0.58M 2) Trio Sport CC Sales Revenue (\$M): 0.58M

Bultfontein	3	<ol style="list-style-type: none"> 1) The Design Advantage CC Sales Revenue (\$M): 0.58M 2) Oosjac CC Sales Revenue (\$M): 0.11M 3) Milestone Foods (PTY) LTD Sales Revenue (\$M): 0.62M
Burgersdorp	2	<ol style="list-style-type: none"> 1) Stormberg Suiwel LTD Sales Revenue (\$M): 0.58M 2) Liebe Voere (PTY) LTD Sales Revenue (\$M): 0.21M
Frankfort	2	<ol style="list-style-type: none"> 1) Panel World CC Sales Revenue (\$M): 0.62M 2) Jerrycar Parts (PTY) LTD Sales Revenue (\$M): 0.58M
Hoopstand	2	<ol style="list-style-type: none"> 1) Mikateko Processing Commodities (PTY) LTD Sales Revenue (\$M): 12.4M 2) MGM Implimente CC Sales Revenue (\$M): 0.92M
Ladybrand	2	<ol style="list-style-type: none"> 1) Janem Cosmetics CC Sales Revenue (\$M): 0.58M 2) M and M Border Agencies CC Sales Revenue (\$M): 0.12M
Phuthaditjaba	3	<ol style="list-style-type: none"> 1) Infantknit CC Sales Revenue (\$M): 0.58M 2) Retiefstraat 17 (Harrismith) (PTY) LTD Sales Revenue (\$M): 0.37M 3) Truss Mecca (PTY) LTD Sales Revenue (\$M): 0.58M
Reddersburg	2	<ol style="list-style-type: none"> 1) Bulberg Slagtery CC Sales Revenue (\$M): 1.56M 2) CF Richter Baktery CC Sales Revenue (\$M): 0.43M
Senekal	2	<ol style="list-style-type: none"> 1) AA Rollermeule CC Sales Revenue (\$M): 0.58M 2) Clearstream Fishing Files CC Sales Revenue (\$M): 0.58M
Thaba Nchu	2	BV Cookware (PTY) LTD Sales Revenue (\$M): 0.58M
Vrede	2	<ol style="list-style-type: none"> 1) Saamstaan Voere (PTY) LTD Sales Revenue (\$M): 0.58M 2) Vrede Elektriese Rollermeule CC Sales Revenue (\$M): 0.58M

Colesberg	1	
Industrial Area	1	1) JR Compressors and IND Suppliers (PTY) LTD Sales Revenue (\$M): 1.3M
Riebeeckstad	1	1) SA Gems and Crafts Welkom CC Sales Revenue (\$M): 0.58M
Rouxville	1	
Vijjoenskroon	1	1) Heatwave Industries (PTY) LTD Sales Revenue (\$M): 0.58M
Theunissen	1	1) WZ Betonwerke (PTY) LTD Sales Revenue: (\$M)
Voorspoed East	1	1) Vestproof Six CC Sales Revenue (\$M): 0.58M
Wesselsbron	1	1) SBC electrical Engineering CC Sales Revenue (\$M): \$0.58M

Source: DNB Business Directory, Free State Manufacturing.²⁰; Kompas Free State Business Directory.²¹

²⁰ DNB Business Directory, Free State Manufacturing. Accessed from: (https://www.dnb.com/business-directory/company-information/manufacturing-sector.za.free_state.html).

²¹ Kompas Free State Business Directory. Manufacturing Companies. Accessed from: (<https://za.kompass.com/c/marley-pipe-systems-bfn/zan588755/>).

